WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE

Charleston, WV 25304

Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):**
Murphy Consolidated Industries, Inc.

2. Facility Name or Location:
Murphy Field, Follansbee

3. DAQ Plant ID No.:
0 0 9 — 0 0 0 8 3

4. Federal Employer ID No. (FEIN):
5 5 0 5 5 0 5 8 5

5. **Permit Application Type:**

☒ Initial Permit — When did operations commence? 10/01/1978
☐ Permit Renewal — What is the expiration date of the existing permit? 04/12/2011
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____
_____
_____

8. Number of onsite employees:
12

9. Governmental Code:

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: 575 Veterans Drive PO Box 687		
City: Follansbee	**State:** WV	**Zip: 26037-**
Telephone Number: (304) 527-0426	**Fax Number:** (304) 527-4233	

12. Facility Location		
Street: Koppers Road	**City:** Follansbee	**County:** Brooke
UTM Easting: 533.9 km	**UTM Northing:** 4,463.5 km	**Zone:** ☒ 17 or ☐ 18
Directions: Near the north end of Folllansbee, when traveling north on State Route 2 turn left onto Koppers Road at traffic signal follow Koppers Road and cross over railroad tracks and turn left at next facility entrance.		
Portable Source? ☒ Yes ☐ No		
Is facility located within a nonattainment area? ☒ Yes ☐ No		**If yes, for what air pollutants?** PM2.5
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** Ohio, Pennsylvania
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: Alan McLaughlin		**Title:** Vice President
Street or P.O. Box: 575 Veterans Drive PO Box 687		
City: Follansbee	**State:** WV	**Zip: 26037-**
Telephone Number: (304) 527-0426	**Fax Number:** (304) 527-4233	
E-mail address: alan@murphyconsolidated.com		
Environmental Contact: as above		**Title:**
Street or P.O. Box:		
City:	**State:**	**Zip:** -
Telephone Number: ( ) -	**Fax Number:** ( ) -	
E-mail address:		
Application Preparer: Larry Simmons		**Title:** Principal
Company: Energy & Environmental Mgmt, Inc		
Street or P.O. Box: Post Office Box 376		
City: Harrison City	**State:** Pa	**Zip: 15636-**
Telephone Number: (724) 744-7170	**Fax Number:** (724) 744-0265	
E-mail address: e2minc@gmail.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Two Coke Screening Stations	Sized coke		3299

Provide a general description of operations.

Murphy Consolidated Industries operates two coke screening stations. The two stations receive coke from Wheeling-Pittsburgh Steel Corporation coke oven batteries for classification into three sizes. The screening station consists of a feed hopper and four conveyors. The first conveyor feeds the three deck screens and the remaining three conveyors remove the classified coke from the screen and places the coke in a surge pile.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☒ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☐ NESHAP (45CSR15)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☐ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☒ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☒ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies. NESHAP (45 CSR15) – No hazardous pollutants emitted from this source. Section 111 NSPS – No standards listed for coke screening operations. Section 112(g) Case-by-case MACT – No HAPs are emitted. Section 112(i) Early reduction of HAP – No HAPs are emitted. Section 129 Standards/Reqts. – No solid waste generated. Tank vessel reqt., - section 183(f) – No tanks on site. NAAQS, increments or visibility (temp. sources) – Not a temporary source. Emissions Trading and Banking (45CSR28) – Source is too small. N0x Budget Trading Program Non-EGUs (45CSR1) – Source does not emit N0x. PSD (45 CSR14) – Emission increases don't trigger PSD. Section 112(d) MACT standards – No standard given for screening operations. Section 112(j) MACT hammer – No standard given for screening operations. 112(r) RMP – No applicable chemicals stored on site. Consumer/commercial prod. Reqts., section 138(e) -
☒ Permit Shield

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

Stratospheric ozone (Title VI) – No ozone precursors are emitted.

Emissions cap 45CSR section 30-2.6.1 – Facility has not taken an emissions cap.

45CSR27 State enforceable only rule – None that apply.

Acid Rain (Title IV, 45CSR26) – No acid forming operations.

N0x Budget Trading Program EGUs (45CSR26) – No N0x is generated.

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

SIP – Emissions requirements listed for PM10 & PM 2.5 may require additional requirements

Minor source NSR (45CSR13) – An operating permit has been issued.

Nonattainment NSR – PM2.5

45CSR4 State enforceable only rule – No objectionable odors emitted.

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SIP – Maintaining controls that were included in the compliance modeling.

Minor source NSR (45CSR13) – Maintaining controls included in the operating permit.

Nonattainment NSR – PM2.5, no action required yet.

45CSR4 State enforceable only rule – No objectionable odors emitted.

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements *(Continued)* - *Attach additional pages as necessary.*

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

☐ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all facility-wide applicable requirements? ☐ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-2548 Revision	12/22/2003	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	

22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
	MM/DD/YYYY	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	0
Nitrogen Oxides (NO_X)	0
Lead (Pb)	0
Particulate Matter ($PM_{2.5}$)[1]	0.1142
Particulate Matter (PM_{10})[1]	0.9630
Total Particulate Matter (TSP)	4.0315
Sulfur Dioxide (SO_2)	0
Volatile Organic Compounds (VOC)	0
Hazardous Air Pollutants[2]	Potential Emissions
Regulated Pollutants other than Criteria and HAP	Potential Emissions

[1]$PM_{2.5}$ and PM_{10} are components of TSP.
[2]For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☐	1.	Air compressors and pneumatically operated equipment, including hand tools.
☐	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☐	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☐	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☐	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☐	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☐	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☐	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☐	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☐	26.	Fire suppression systems.
☐	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☐	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☒	34.	Indoor or outdoor kerosene heaters.
☐	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☐	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.
☒	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant

24. Insignificant Activities (Check all that apply)		
		owners/operators must still get a permit if otherwise requested.)
☐	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
☐	43.	Process water filtration systems and demineralizers.
☐	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☐	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☐	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☒	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☐	54.	Steam vents and safety relief valves.
☐	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☒	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☐	58.	Tobacco smoking rooms and areas.
☐	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

26. Emission Units

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

27. Control Devices

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Alan McLaughlin	Title: Vice President

Responsible official's signature:

Signature: _____ Signature Date: _____

(Must be signed and dated in blue ink)

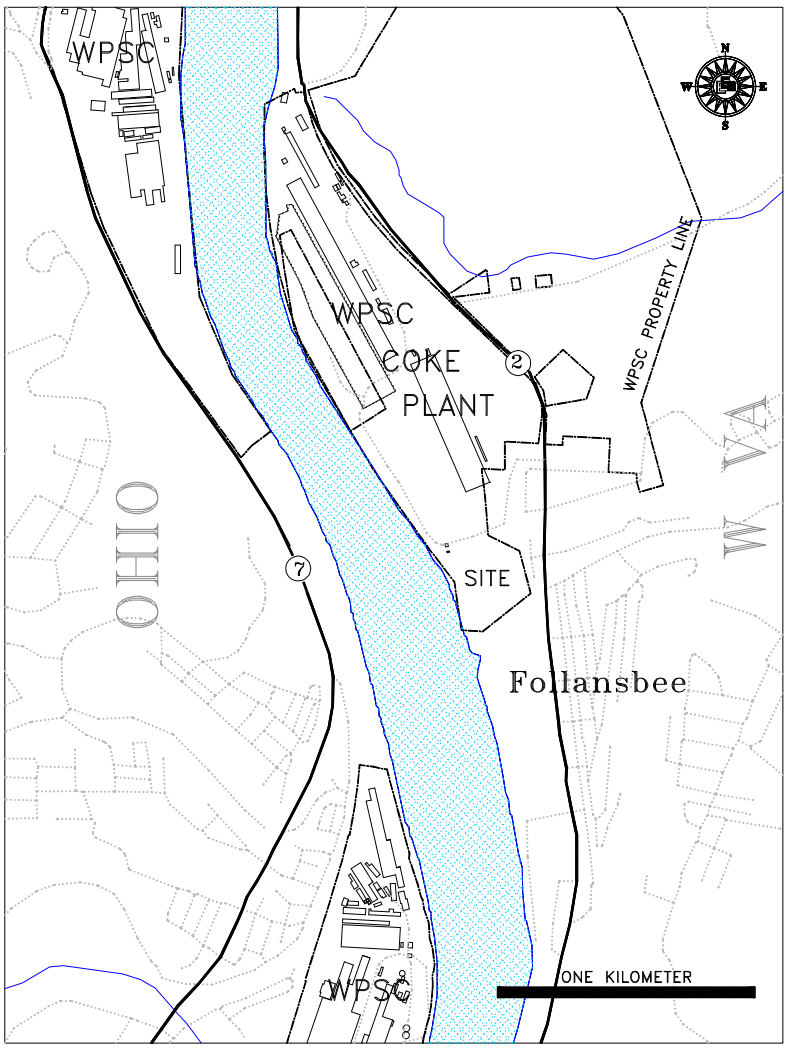
Note: Please check all applicable attachments included with this permit application:

☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☒	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

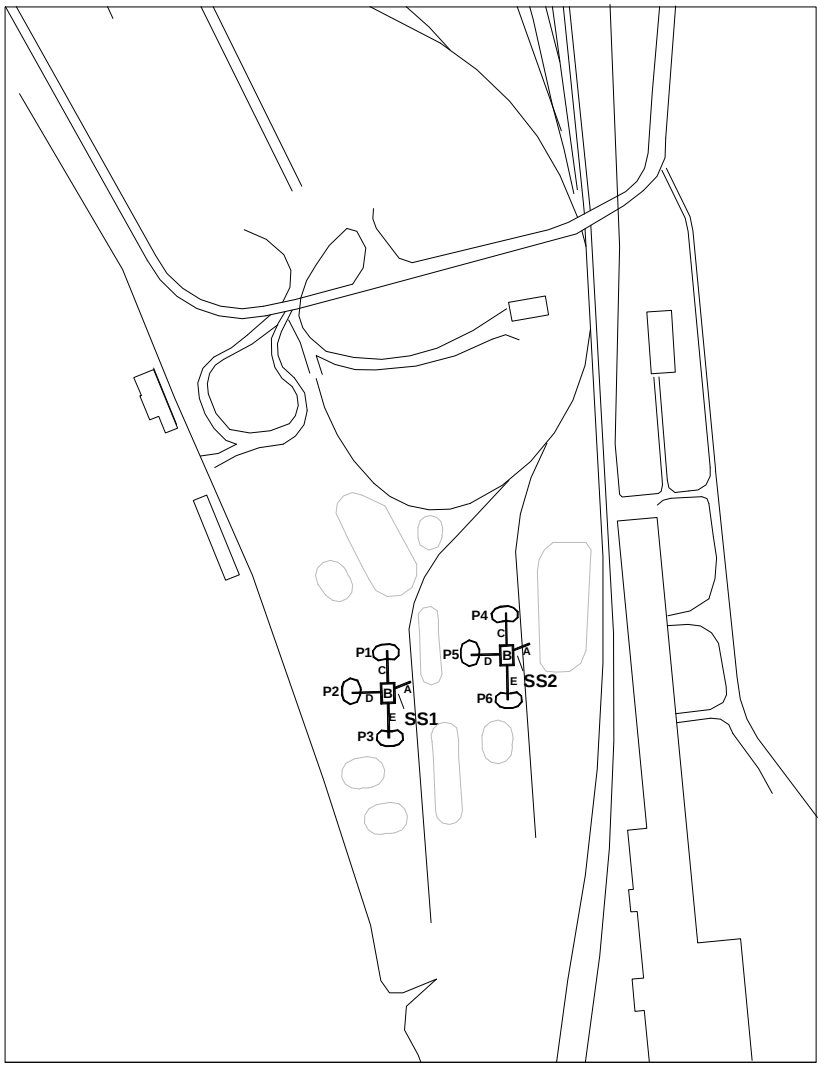
Murphy Consolidated Industries

Attachment A
Area Map



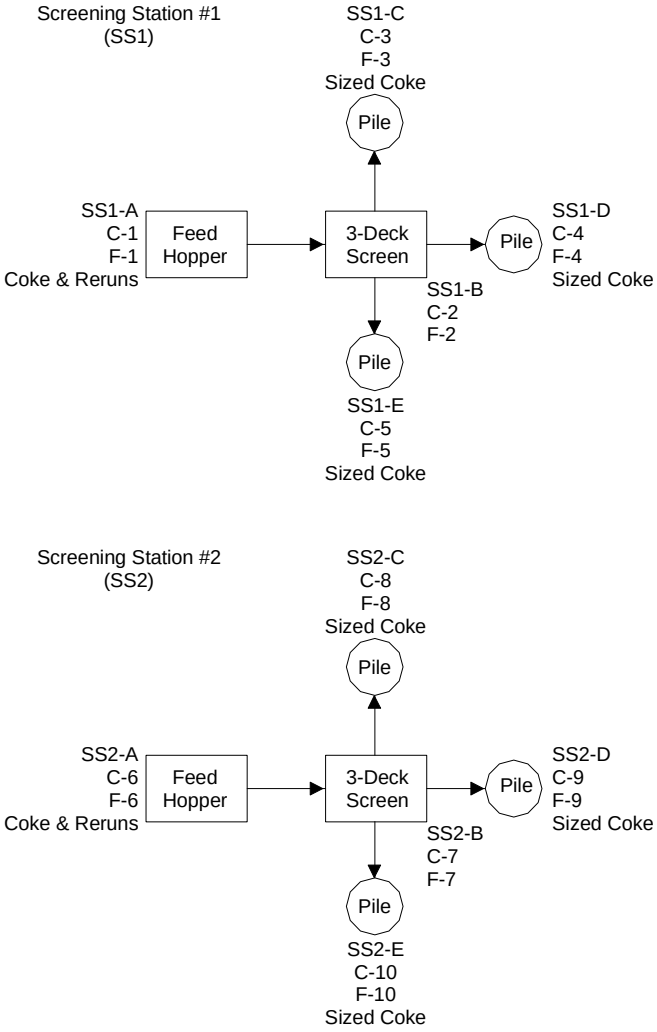
Murphy Consolidated Industries

Attachment B
Plot Plan



Murphy Consolidated Industries

Attachment C
Process Flow Diagram



C1- C10 - Good equipment operating practices (minimize drop heights, operating speed) and maintenance.
C1, C3-C6, C8-C10 - Equipment design and partially enclosed transfer points.
C2, C7 - Equipment design and fully enclosed screen.
C-1 - C10 - Material qualities (size and dampness).

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
F1	C1	SS1-A	Screening Station 1 Feed Hopper/Conveyor	125 ton/hour	1978
F2	C2	SS1-B	Screening Station 1 3-Deck Screen	125 ton/hour	1978
F3	C3	SS1-C	Screening Station 1 Product Belt Conveyor	125 ton/hour	1978
F4	C4	SS1-D	Screening Station 1 Product Belt Conveyor	125 ton/hour	1978
F5	C5	SS1-E	Screening Station 1 Product Belt Conveyor	125 ton/hour	1978
F6	C6	SS2-A	Screening Station 2 Feed Hopper/Conveyor	125 ton/hour	1989
F7	C7	SS2-B	Screening Station 2 3-Deck Screen	125 ton/hour	1989
F8	C8	SS2-C	Screening Station 2 Product Belt Conveyor	125 ton/hour	1989
F9	C9	SS2-D	Screening Station 2 Product Belt Conveyor	125 ton/hour	1989
F10	C10	SS2-E	Screening Station 2 Product Belt Conveyor	125 ton/hour	1989
F11	C11	SS-F	Paved Roads	8,000 vmt/year	1999
F12	C12	SS-G	Unpaved Roads	4,900 vmt/year	1999

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: SS1-A & SS2-A (F1 & F6)	**Emission unit name:** Stock coke belt conveyors	**List any control devices associated with this emission unit.** C1 & C6
Provide a description of the emission unit (type, method of operation, design parameters, etc.): These are belt conveyors moving stock coke from the feed hoppers to the screening stations. Control for these units is good operating practice. All drop point heights will be minimized and material moisture content will be maintained to minimize dust.		
Manufacturer: unknown	**Model number:** unknown	**Serial number:** unknown
Construction date: MM/DD/YYYY	**Installation date:** 10/20/1978, 06/22/1989	**Modification date(s):** MM/DD/YYYY
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 125 tons per hour		
Maximum Hourly Throughput: 125 tons per hour	**Maximum Annual Throughput:** 100,000 tons	**Maximum Operating Schedule:** 8 hrs/day, 260 days/year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ☐ Yes ☒ No	**If yes, is it?** ☐ Indirect Fired ☐ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0	0
Nitrogen Oxides (NO_X)	0	0
Lead (Pb)	0	0
Particulate Matter ($PM_{2.5}$)	0.0021 (both)	0.0017 (both)
Particulate Matter (PM_{10})	0.07 (both)	0.03 (both)
Total Particulate Matter (TSP)	0.15 (both)	0.06 (both)
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Calculated using AP-42 Section 13.2.4 Drop equation.
EF = (k)(0.0032 [(U/5)^1.3 / (M/2)^1.4] where
k (TSP) = 0.74
k (PM10) = 0.35
k(PM2.5) = 0.06*k(PM10) = 0.021
M = Moisture content = 6.5% from 10/26/97 application
U = Average wind speed = 6.19 mph

PM, for each conveyor:
125 ton/hr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.075 lb/hr
100,000 ton/yr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.030 ton/yr

PM10, for each conveyor:
125 ton/hr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.035 lb/hr
100,000 ton/yr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.014 ton/yr

PM2.5, for each conveyor:
125 ton/hr * (0.021)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.0021 lb/hr
100,000 ton/yr * (0.021)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.00084 ton/yr

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Thoughput for each station shall not exceed 125 tons/hour and 100,000 tons/year. Required by Permit No. R13-2548 Revision

2. Full enclosures have been installed at the screening stations. Required by Permit No. R13-2548 Revision

3. 45CSR7 Sections 3.1, 4.1, 5.1 and 5.2.

4. 45CSR13 Sections 6.1, 10.2 and 10.3.

5. 45CSR22

☐ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. A rolling yearly total for each station is calculated as required by Permit No. R13-2548 Revision

2. Full enclosures are maintained and operated as required by Permit No. R13-2548 Revision

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: SS1-B & SS2-B (F2 & F7)	**Emission unit name:** Coke screens	**List any control devices associated with this emission unit.** C2 & C7
Provide a description of the emission unit (type, method of operation, design parameters, etc.): These are three-deck coke screens. Control is by complete enclosure.		
Manufacturer: SECO,Gator	**Model number:** unknown	**Serial number:** 1663P1036, unknown
Construction date:	**Installation date:** 10/20/1978, 06/22/1989	**Modification date(s):** MM/DD/YYYY
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 125 tons/hour		
Maximum Hourly Throughput: 125 tons/hour (each)	**Maximum Annual Throughput:** 100,000 tons per year (each)	**Maximum Operating Schedule:** 8 hrs/day, 260 days/year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ☐ Yes ☒ No	**If yes, is it?** ☐ Indirect Fired ☐ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0	0
Nitrogen Oxides (NO_X)	0	0
Lead (Pb)	0	0
Particulate Matter ($PM_{2.5}$)	0.0023 (both)	0.0009 (both)
Particulate Matter (PM_{10})	0.0375 (both)	0.0150 (both)
Total Particulate Matter (TSP)	0.0788 (both)	0.0315 (both)
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Table 11.9.2-2 Crushed Stone Processing Operations
EF(TSP) = EF(PM10) * 2.1
EF(PM10) = 0.015 lb PM/ton processed
EF(PM2.5) = EF(PM10) * 0.06
99% control efficiency for a full enclosure.

PM, for each screen:
125 ton/hr * 0.0315 lb/ton * 0.01 = 0.039 lb/hr
100,000 ton/yr * 0.0315 lb/ton * 0.01 * ton/2000 lb = 0.0158 ton/yr

PM10, for each screen:
125 ton/hr * 0.015 lb/ton * 0.01 = 0.019 lb/hr
100,000 ton/yr * 0.015 lb/ton * 0.01 * ton/2000 lb = 0.0075 ton/yr

PM2.5, for each screen:
125 ton/hr * 0.0009 lb/ton * 0.01 = 0.0011 lb/hr
100,000 ton/yr * 0.0009 lb/ton * 0.01 * ton/2000 lb = 0.0005 ton/yr

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Thoughput for each station shall not exceed 125 tons/hour and 100,000 tons/year. Required by Permit No. R13-2548 Revision

2. Full enclosures have been installed at the screening stations. Required by Permit No. R13-2548 Revision

3. 45CSR7 Sections 3.1, 4.1, 5.1 and 5.2.

4. 45CSR13 Sections 6.1, 10.2 and 10.3.

5. 45CSR22

☐ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. A rolling yearly total for each station is calculated as required by Permit No. R13-2548 Revision

2. Full enclosures are maintained and operated as required by Permit No. R13-2548 Revision

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: SS1-C & SS2-C (F3 & F8)	**Emission unit name:** Sized coke belt conveyors ¼-3/4 " coke	**List any control devices associated with this emission unit.** C3 & C8
Provide a description of the emission unit (type, method of operation, design parameters, etc.): These are the sized coke belt conveyors coming from the screening station to temporary surge piles. Control for these units is good operating practice. All drop point heights will be minimized and material moisture content will be maintained to minimize dust.		
Manufacturer: unknown	**Model number:** unknown	**Serial number:** unknown
Construction date: MM/DD/YYYY	**Installation date:** 10/20/1978, 06/22/1989	**Modification date(s):** MM/DD/YYYY
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 125 tons/hour		
Maximum Hourly Throughput: 125 tons/hour	**Maximum Annual Throughput:** 33,000 tons	**Maximum Operating Schedule:** 8 hrs/day, 260 days/year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ☐ Yes ☒ No	**If yes, is it?** ☐ Indirect Fired ☐ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0	0
Nitrogen Oxides (NO_X)	0	0
Lead (Pb)	0	0
Particulate Matter ($PM_{2.5}$)	0.0014 (both)	0.0006 (both)
Particulate Matter (PM_{10})	0.024 (both)	0.010 (both)
Total Particulate Matter (TSP)	0.050 (both)	0.020 (both)
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Calculated using AP-42 Section 13.2.4 Drop equation.
EF = (k)(0.0032 [(U/5)^1.3 / (M/2)^1.4] where
k(TSP) = 0.74
k(PM10) = 0.35
k(PM2.5) = 0.06*k(PM10) = 0.021
M = Moisture content = 6.5% from 10/26/97 application
U = Average wind speed = 6.19 mph

PM, for each conveyor:
41.25 ton/hr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.025 lb/hr
33,000 ton/yr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.010 ton/yr

PM10, for each conveyor:
41.25 ton/hr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.012 lb/hr
33,000 ton/yr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.005 ton/yr

PM2.5, for each conveyor:
41.25 ton/hr * (0.021)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.00072 lb/hr
33,000 ton/yr * (0.021)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.0003 ton/yr

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

☐ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: SS1-D & SS2-D (F4 & F9)	**Emission unit name:** Sized coke belt conveyors <1/4" coke	**List any control devices associated with this emission unit.** C4 & C9
Provide a description of the emission unit (type, method of operation, design parameters, etc.): These are the sized coke belt conveyors coming from the screening station to temporary surge piles. Control for these units is good operating practice. All drop point heights will be minimized and material moisture content will be maintained to minimize dust.		
Manufacturer: unknown	**Model number:** unknown	**Serial number:** unknown
Construction date: MM/DD/YYYY	**Installation date:** 10/20/1978, 06/22/1989	**Modification date(s):** MM/DD/YYYY
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 125 tons/hour		
Maximum Hourly Throughput: 125 tons/hour	**Maximum Annual Throughput:** 50,000	**Maximum Operating Schedule:** 8 hrs/day, 260 days/year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ☐ Yes ☒ No	**If yes, is it?** ☐ Indirect Fired ☐ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0	0
Nitrogen Oxides (NO_X)	0	0
Lead (Pb)	0	0
Particulate Matter ($PM_{2.5}$)	0.0023 (both)	0.0008 (both)
Particulate Matter (PM_{10})	0.038 (both)	0.014 (both)
Total Particulate Matter (TSP)	0.088 (both)	0.030 (both)
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Calculated using AP-42 Section 13.2.4 Drop equation.
EF = (k)(0.0032 [(U/5)^1.3 / (M/2)^1.4] where
k(TSP) = 0.74
k(PM10) = 0.35
k(PM2.5) = 0.06*k(PM10) = 0.021
M = Moisture content = 6.5% from 10/26/97 application
U = Average wind speed = 6.19 mph

PM, for each conveyor:
75.00 ton/hr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.044 lb/hr
50,000 ton/yr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.015 ton/yr

PM10, for each conveyor:
75.00 ton/hr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.019 lb/hr
50,000 ton/yr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.007 ton/yr

PM2.5, for each conveyor:
75.00 ton/hr * (0.021)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.00114 lb/hr
50,000 ton/yr * (0.21)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.0004 ton/yr

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

☐ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: SS1-E & SS2-E (F5 & F10)	**Emission unit name:** Sized coke belt conveyors >1" coke	**List any control devices associated with this emission unit.** C5 & C10
Provide a description of the emission unit (type, method of operation, design parameters, etc.): These are the sized coke belt conveyors coming from the screening station to temporary surge piles. Control for these units is good operating practice. All drop point heights will be minimized and material moisture content will be maintained to minimize dust.		
Manufacturer: unknown	**Model number:** unknown	**Serial number:** unknown
Construction date: MM/DD/YYYY	**Installation date:** 10/20/1978, 06/22/1989	**Modification date(s):** MM/DD/YYYY
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 125 tons/hour		
Maximum Hourly Throughput: 125 tons/hour	**Maximum Annual Throughput:** 17,000	**Maximum Operating Schedule:** 8 hrs/day, 260 days/year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ☐ Yes ☒ No	**If yes, is it?** ☐ Indirect Fired ☐ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0	0
Nitrogen Oxides (NO_X)	0	0
Lead (Pb)	0	0
Particulate Matter ($PM_{2.5}$)	0.0007 (both)	0.0002 (both)
Particulate Matter (PM_{10})	0.012 (both)	0.004 (both)
Total Particulate Matter (TSP)	0.026 (both)	0.010 (both)
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Calculated using AP-42 Section 13.2.4 Drop equation.
EF = (k)(0.0032 [(U/5)^1.3 / (M/2)^1.4] where
k(TSP) = 0.74
k(PM10) = 0.35
k(PM2.5) = 0.06*k(PM10) = 0.021
M = Moisture content = 6.5% from 10/26/97 application
U = Average wind speed = 6.19 mph

PM, for each conveyor:
21.25 ton/hr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.013 lb/hr
17,000 ton/yr * (0.74)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.005 ton/yr

PM10, for each conveyor:
21.25 ton/hr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.006 lb/hr
17,000 ton/yr * (0.35)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.002 ton/yr

PM2.5, for each conveyor:
21.25 ton/hr * (0.021)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] = 0.00036 lb/hr
17,000 ton/yr * (0.021)(0.0032 [(6.19/5)^1.3 / (6.5/2)^1.4] * ton/2000 lb = 0.00012 ton/yr

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

☐ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
F11	Paved Roads	C11

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Chemical dust suppressant applied at frequency described in March 9, 2007 PM10 Plan submitted by Wheeling-Pittsburgh Steel to Ohio EPA

Manufacturer:	**Model number:**	**Serial number:**
Construction date: MM/DD/YYYY	**Installation date:** MM/DD/YYYY	**Modification date(s):** MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.058	0.060
Particulate Matter (PM_{10})	0.39	0.40
Total Particulate Matter (TSP)	1.98	2.06
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 13.2.1.3 Paved Roads EF=(k * (sL/2)^0.65 * (W/3)^1.5) – C lb/VMT
TSP k=0.082; PM10 k=0.016; PM2.5 k=0.0024
TSP C=0.00047; PM10 C=0.00047; PM2.5 C=0.00036 lb/VMT
sL= silt loading = 0.95 grams/sq meter immediately prior to daily vacuum sweeping
sL= silt loading = 0.22 grams/sq meter immediately after daily vacuum sweeping
sL values determined in PM10 Plan Study dated 03/09/07 submitted to Ohio EPA
W = mean vehicle weight = 18 tons
Total paved road mileage in Murphy facility = 8,000 VMT per year
Hours of operation during the year = 260 days/year * 8 hr/day = 2,080
Emission rates were determined as the average of before and after daily sweeping

Hourly TSP before = ((0.082 * (0.95/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2080 = 2.86 lb/hr
Hourly TSP after = ((0.082 * (0.22/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2080 = 1.10 lb/hr Therefore mean = 1.98 lb/hr
Yearly TSP before = ((0.082 * (0.95/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2000 = 2.97 tpy
Yearly TSP after = ((0.082 * (0.22/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2000 = 1.14 tpy Therefore mean = 2.06 tpy

Hourly PM10 before = ((0.016 * (0.95/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2080 = 0.56 lb/hr
Hourly PM10 after = ((0.016 * (0.22/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2080 = 0.21 lb/hr Therefore mean = 0.39 lb/hr
Yearly PM10 before = ((0.016 * (0.95/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2000 = 0.58 tpy
Yearly PM10 after = ((0.016 * (0.22/2)^0.65 * (18/3)^1.5) – 0.00047) * 8,000/2000 = 0.22 tpy Therefore mean = 0.40 tpy

Hourly PM2.5 before = ((0.0024 * (0.95/2)^0.65 * (18/3)^1.5) – 0.00036) * 8,000/2080 = 0.084 lb/hr
Hourly PM2.5 after = ((0.0024 * (0.22/2)^0.65 * (18/3)^1.5) – 0.00036) * 8,000/2080 = 0.032 lb/hr Therefore mean = 0.058 lb/hr
Yearly PM2.5 before = ((0.0024 * (0.95/2)^0.65 * (18/3)^1.5) – 0.00036) * 8,000/2000 = 0.087 tpy
Yearly PM2.5 after = ((0.0024 * (0.22/2)^0.65 * (18/3)^1.5) – 0.00036) * 8,000/2000 = 0.033 tpy Therefore mean = 0.060 tpy

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

PM10 State Implementation Plan

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monthly records of daily sweeper reports for days when the plant operated

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
F12	Unpaved Roads	C12

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Chemical dust suppressant applied at frequency described in March 9, 2007 PM10 Plan submitted by Wheeling-Pittsburgh Steel to Ohio EPA

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/YYYY	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.05	0.05
Particulate Matter (PM_{10})	0.47	0.49
Total Particulate Matter (TSP)	1.75	1.82
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 13.2.2-5 Unpaved Roads EF=k * (s/12)^a * (W/3)^b lb/VMT
TSP k=4.9, a=0.7, b=0.45; PM10 k=1.5, a=0.9, b=0.45; PM2.5 k=0.15, a=0.9, b=0.45
S= silt content = 6 %, W = mean vehicle weight = 18 tons
Total mileage in Murphy facility = 4,900 vmt
Hours of operation during the year = 2,080
Control efficiency = 89%

Hourly TSP = 4.9 * (6/12)^0.7 * (18/3)^0.45 * (1 - 0.89) * 4,900/2080 = 1.75 lb/hr
Yearly TSP = 4.9 * (6/12)^0.7 * (18/3)^0.45 * (1 - 0.89) * 4,900/2000 = 1.82 tons/year

Hourly PM10 = 1.5 * (6/12)^0.9 * (18/3)^0.45 * (1 - 0.89) * 4,900/2080 = 0.47 lb/hr
Yearly PM10 = 1.5 * (6/12)^0.9 * (18/3)^0.45 * (1 - 0.89) * 4,900/2000 = 0.49 tons/year

Hourly PM2.5 = 0.15 * (6/12)^0.9 * (18/3)^0.45 * (1 - 0.89) * 4,900/2080 = 0.05 lb/hr
Yearly PM2.5 = 0.15 * (6/12)^0.9 * (18/3)^0.45 * (1 - 0.89) * 4,900/2000 = 0.05 tons/year

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included. PM10 State Implementation Plan
____ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.) Monthly records of application rate and date of application of chemical dust suppressant
Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.